# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/038,784 | 12/31/2001 | Xiaolin Lu | TI-33671 | 4099 |

| | | | |
|---|---|---|---|
| 23494 | 7590 | 02/07/2006 | |

TEXAS INSTRUMENTS INCORPORATED
P O BOX 655474, M/S 3999
DALLAS, TX 75265

| EXAMINER |
|---|
| TSE, YOUNG TOI |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2637 | |

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| | Application No. | Applicant(s) |
|---|---|---|
| Office Action Summary | 10/038,784 | LU ET AL. |
| | Examiner | Art Unit |
| | YOUNG T. TSE | 2637 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☒ Responsive to communication(s) filed on *22 November 2005*.

2a) ☒ This action is **FINAL**.      2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) *34-38* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *34-38* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9) ☒ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *31 December 2001* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some *   c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

# DETAILED ACTION

## *Specification*

1.    The disclosure is objected to because of the following informalities: page 9, line

15, "it window" should be "its window".  Appropriate correction is required.

## *Claim Objections*

2.    Claims 34-38 are objected to because of the following informalities:

In claim 34:

> Line 4, "receiver packet" should be "receive packet".

> Lines 6, 8 and 16, "buffer" should be "buffer window".

> Line 7, "a higher" should be "an upper".

> Lines 10, 12, 13, 14, 15 and 18, "of packets" should be "of data packets".

> Line 12, "packets;" should be "packets; and".

> Line 13, "the transmitter" should be "the transmitter in the receive packet buffer

window".

In claim 35, line 2, "of packets in the receive packet buffer with update" should be

"of data packets in the receive packet buffer window with the updated".

In claim 36, line 2, "of packets corresponds" should be "of data packets

correspond" and line 3, "a upper limit respectively of the transmit packet buffer" should

be "an upper limit respectively of the transmit packet buffer window".

In claim 37:

Line 2, "receiver packet" should be "receive packet".

Line 3, "buffer window" should be "buffer window of a receiver".

Lines 4 and 6, "buffer" should be "buffer window".

Line 5, "a higher" should be "an upper".

Lines 8, 10, 13 (both occurrences) and 14, "of packets" should be "of data

packets".

Line 9, "the receiver" should be "the receiver in the first plurality of data packets".

Line 10, "the transmitter;" should be "the transmitter in the receive packet buffer

window; and".

In claim 38, line 2, "of packets in the receive packet buffer with update" should be

"of data packets in the receive packet buffer window with the updated".

Appropriate correction is required.

## Claim Rejections - 35 USC § 102

3.      The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by
another filed in the United States before the invention by the applicant for patent or (2) a patent
granted on an application for patent by another filed in the United States before the invention by the
applicant for patent, except that an international application filed under the treaty defined in section
351(a) shall have the effects for purposes of this subsection of an application filed in the United States
only if the international application designated the United States and was published under Article 21(2)
of such treaty in the English language.

4.      Claims 34-38 are rejected under 35 U.S.C. 102(e) as being anticipated by

Chintada et al. (US 6,697,983 B1) or "Chintada".

With respect to claims 34-38, Chintada discloses a method or apparatus for

recovering lost frames transmitted between a packet sending unit and a packet

receiving unit in a data communications system including the steps of: (a) identifying a

failure to successfully receive a missed frame at the packet receiving unit; (b)

establishing a logical tunnel channel at the packet receiving unit to acknowledge the

next successfully received frame; (c) starting a first timer at the packet receiving unit; (d)

upon receiving a tunnel establishment request from the packet receiving unit, the packet

sending unit resending the missed frame on the logical tunnel channel and starting a

second timer; and (e) the packet sending unit resending the missed frame a specified

number of times until receiving an acknowledgement from the pack receiving unit. See

the abstract, column 2, lines 51-67 and column 3, lines 1-32.

Chintada also teaches that with the sliding window protocol, at any instant in time

a transmitter maintains a list of consecutive sequence numbers corresponding to frames

it is permitted to send.  These frames fall within a "sending window."  In the same

manner, a receiver maintains a "receiving window" corresponding to the frames it is

permitted to accept.  The sending and receiving windows do not necessarily have the

same upper and lower limits, or the same size.  The sequence numbers within the

sender's window represent frames sent but not yet acknowledged.  Whenever a new

data packet arrives from the network layer, it is given the next highest sequence

number, and the upper edge of the window is advanced by one.  When an acknowledge

is received, the lower edge of the window is advanced by one. The window

continuously maintains a list of unacknowledged frames. Since frames currently within

the sender's window may be lost or changed during transmission, the sender must keep

all the sent frames in memory in the event a retransmission is required. See column 4,

lines 31-55.


## *Conclusion*

5.     The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Chintada et al. (US 6,765,870 B2) discloses a data link layer and a medium

access control layer connected to each other by data and control paths. The data link

layer is adapted to pass new data frames from a higher layer relative to the data link

layer into the data link layer queue and to suspend a retransmission timer upon a

congestion message received from the medium access control layer, the congestion

message being responsive to a level of stored frames in the medium access control

queue.

6.     Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

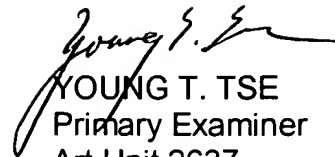than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to YOUNG T. TSE whose telephone number is (571) 272-

3051. The examiner can normally be reached on Monday-Thursday and alternative

Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jay Patel can be reached on (571) 272-2988. The Central FAX Number for

the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

YOUNG T. TSE
Primary Examiner
Art Unit 2637